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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/994,495
Filing Date: November 26, 2001
Appellant(s): SOMACK ET AL.

Leonard D. Bowersox, Esq.
Reg. No. 33,226
For Appellant

EXAMINER'S ANSWER

MAILED

FEB 21 2006

GROUP 1700

This is in response to the appeal brief filed 12/01/2005 appealing from the Office action mailed 2/7/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

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The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner:

The rejection of claims 48 and 49 under 35 U.S.C. § 103(a) over Fernwood et al.(US 5,141,719) in view of Sanadi (US 5,741,463).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,603,899	FRANCISKOVICH ET AL.	02-1997
5,741,463	SANADI	04-1998
5,846,493	BANKIER ET AL.	12-1998 ,
5,955,271	LEYING ET AL.	09-1999
5,124,041	SHEER ET AL.	06-1992
5,368,823	MCGRAW ET AL.	11-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

(a) Claims 1-5, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Franciskovich et al.

With respect to claim 1, the reference of Franciskovich et al. discloses a system (10) for processing a plurality of fluid samples that includes a plurality of sample purification devices

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(12). Each device (12) comprising a tubular body (50) having a first end (62), a first end opening (70), a second end (54), a second end opening (52) and a species-immobilizing filter (51,53) held within the tubular body (50). The system includes removable caps (58) for sealing the second end opening (52) and a sealing device (16) having a surface (36) adapted to individually seal each of the first end openings (70). The sealing device is a tray (16) comprising a plurality of recesses (34). Note the tray seals the first end openings during processing of the fluid samples. The tray is sealed to plate (14) holding the devices (12) during centrifugation (See column 4, line 60, to column 5, line 20). Vacuum port (80) and gasket (15) are not required and/or used during the centrifugal processing (See column 5, line 59, to column 6, line 4).

With respect to claims 2 and 19, the surface (36) of the sealing device (16) has a plurality of recesses (34) therein.

With respect to claims 3-5, the reference also discloses the use of caps (64,68) adapted to seal the first end opening (70).

With respect to claim 16, the device would be an assembly.

(b) Claims 1-9 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franciskovich et al. in view of Sanadi.

The reference of Franciskovich et al. discloses a system for processing a plurality of fluid samples that includes a plurality of biological sample purification devices (12). Each device (12) comprising a tubular body (50) having a first end (54), a first end opening (52), a second end (62), a second end opening (70) and a species-immobilizing filter (51,53) held within the tubular body (50). The system includes removable caps (64,68) for sealing the second end opening (70).

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With respect to claim 1, while the reference discloses the use of caps (58) for individually sealing each of the first end opening (52), the reference fails to disclose the use of a sealing device having a surface adapted to individually seal each of the first end openings wherein the sealing device is a tray with a plurality of recesses.

The reference of Sanadi discloses a variety of well-known means for sealing the openings of an array of openings of an array of tubes (See column 1, lines 34-64). Figure 4A of Sanadi discloses a sealing device or tray (61) with recesses (71) that can be use from the number of possible sealing structures.

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a sealing device as suggested by the reference of Sanadi for the known and expected result of providing means recognized in the art for sealing an array of openings. Use of the device of Sanadi would be advantageous because it would eliminate the need for an individual cap for each opening while providing the sealing suggested by the primary reference of Franciskovich et al. (See column 1, lines 34-64, of Sanadi).

With respect to claims 2 and 19, the sealing tray (61) includes recesses (71).

With respect to claims 3-5, the reference of Franciskovich et al. discloses that the first end openings can be sealed with caps (58) and the second end openings sealed with caps (64,68).

With respect to claims 6 and 7, the filter is located at the second end (62) of the device.

With respect to claims 8 and 9, the reference of Sanadi discloses that the use of an adhesive tape is a well known in the art and can be used when collectively sealing the open top of a plurality of wells or tube (See column 1, lines 34-64, especially column 1, lines 49-54). Use

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of an adhesive with any of the sealing devices would have been well within the purview of one having ordinary skill in the art.

With respect to claim 16, when using the sealing device as suggested by the reference of Sanadi, the structure would be in the form of an assembly.

With respect to claim 17, the reference of Franciskovich et al. discloses the use of a sealing device (16) having a surface (36) adapted to seal the second end openings (70).

With respect to claim 18, the sealing device (16) of the reference of Franciskovich et al. includes recesses (34) for receiving the second end openings (70).

(c) Claims 10, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franciskovich et al. in view of Bankier et al.

The reference of Franciskovich et al. has been discussed above.

With respect to claims 10 and 11, while the reference of Franciskovich et al. employs a species-immobilizing filter (51,53), the reference does not disclose that the filter is disclosed as a nucleic acid purification filter that can bind nucleic acids.

The reference of Bankier et al. discloses that it is known in the art to provide an array of separation columns (1) that are similar to that of the primary reference of Franciskovich et al. with a nucleic acid purification filter (38) that can bind nucleic acids.

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a separation filter as disclosed by the reference of Bankier et al. in the device of the primary reference for the known and expected result of

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separating nucleic acids from biological samples while providing the advantages of the column system disclosed by the primary reference of Franciskovich et al.

With respect to claims 13-15, while the device of the modified reference as discussed above is employed for the purification of DNA fragments from a sample, the reference is silent as to the source of the sample. However, cell lysates, whole blood and tissue extracts are all known in the art to be sources of nucleic acid samples. As a result, it would have been obvious to one of ordinary skill in the art to employ any well-known source of nucleic acid based merely on the intended sample to be analyzed.

(d) Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franciskovich et al. in view of Bankier et al. taken further in view of Leying et al. and Sheer et al.

The combination of the references of Franciskovich et al. and Bankier et al. has been discussed above.

The above claim differs by reciting that the system includes a polymerase solution in the purification device.

The reference of Leying et al. discloses that it is well known in the art to purify and amplify nucleic acid in the same vessel (See Example 1).

The reference of Sheer et al. discloses that it is known in the art to perform PCR in situ on the purification media of a device (See column 8, lines 46-47).

In view of these teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system with PCR reagents for the known and expected result of performing PCR on the purified sample in the filter device. As shown in the

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prior art, in situ PCR is an acceptable alternative to elution of the purified nucleic acid that is amplified in a separate vessel.

(e) The rejection of claims 48 and 49 under 35 U.S.C. 103(a) over Fernwood et al. in view of Sanadi has been withdrawn to simplify the issues on appeal.

(f) Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGraw et al. in view of Sanadi.

The reference of McGraw et al. discloses a plate (8) having a first surface and a second surface that opposes the first surface and a plurality of through-holes (11) where each through-hole extend from the first surface to the second surface and define a first opening at the first surface and a second opening at the second surface (See Figure 1B and Figure 1C). The plate includes a plurality of species-immobilizing filters (7) disposed in each through-hole.

Claim 48 differs by reciting that the system includes a first sealing device adapted to individually seal each of the first openings and a second sealing device adapted to seal each second end opening wherein the sealing device is a tray including a plurality of recesses.

Dependent claim 49 specifies that the first sealing device is a plurality of caps.

The reference of Sanadi discloses that when using an array of tube or multi-well plates (with or without a filtration feature) contamination of the samples within the individual wells or tubes is a problem (See column 1, lines 34-44). The reference also discloses a number of devices known in the art for sealing the openings associated with arrays of tubes or wells. The devices

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include plates, tapes and caps (See column 1, lines 44-64). Figure 4A discloses a sealing device or tray (61) that includes a plurality of recesses formed by elements (73).

In view of this teaching, it would have been well within the purview of one having ordinary skill in the art to employ any of the sealing devices discussed by the reference of Sandi to seal the openings of an array device, such as that of the primary reference of McGraw et al., with a sealing tray of Figure 4A or individual caps for the known and expected result of preventing contamination of the wells of the array device.

(10) Response to Argument

(a) With respect to the rejection of claims 1-5, 16 and 19 under 35 U.S.C. 102 (b) over the reference of Franciskovich et al., Appellants argue that the rejection is improper for the following reasons:

(i) The reference of Franciskovich et al. fails to teach a sealing device having a surface adapted to “individually seal” each of the first end openings of the plurality of devices, and the sealing device comprises a tray and the tray comprises a plurality of recesses.

In response, the Examiner is of the position that the structure of the reference of Franciskovich et al. meets the instant claim language for the following reasons. The reference discloses a device that includes a tray (16) wherein the tray comprises a plurality of recesses (34). When the assembled device is employed in a centrifuge device, the upper surface (36) of tray (16) is held against lower surface (23) of the tube holder (14). Each recess (34) encompasses an opening (70) of a tubular body (12). The

reference of Franciskovich et al. states that the device is firmly held in an assembled state (See column 5, lines 8-9). When the upper surface (36) contacts the lower surface (23) in this firmly held and assembled state, the upper surfaces (36) defining the recesses (34) individually seal the first end openings (70) of the plurality of the devices (12). The Examiner stresses that in the absence of further positively recited structure in the claim with respect to the “seal” provided, the firmly held tray (16) and tube holder (14) wherein the surfaces (36) and (23) contact one another provide a “seal” and “individually seal” each opening (70) are recited in instant claim 1.

(ii) The reference of Franciskovich et al. teaches away from the claimed invention by suggesting that a seal is not provided between the column manifold (14) and the collector plate (16) when a centrifuge is employed to drive the sample. To support this position Appellants make the following arguments:

Appellants stress that while the reference of Franciskovich et al. states that manifold (14) “rests” or is “assembled” onto the collector plate, the reference never teaches a seal is provided between the collector plate (16) and each opening (70) and never teaches that manifold (14) in contact with collector plate (16) forms a seal.

In response, as argued previously, the reference of Franciskovich et al. states that the device is firmly held in an assembled state (See column 5, lines 8-9). When the upper surface (36) contacts the lower surface (23) in this firmly held and assembled state, the upper surfaces (36) defining the recesses (34) individually seal the first end openings (70) of the plurality of the devices (12).

Appellants further argue that the openings are not sealed because during the centrifuging process, sample passes out of opening (70) and into well (32).

In response, Appellants' arguments are not commensurate in scope with the instant claim language. The instant claim language merely recites that the sealing device has a surface adapted to individually seal each of the first end openings and the sealing device comprises a tray with a plurality of recesses. The tray of the device of Franciskovich et al. meets this structure. As argued previously, each opening (70) is individually sealed by the upper surface (36) of the tray (16) defining the plurality of recesses (34). The openings (70) are sealed with respect to the exterior environment of the assembled device. Nothing in the instant claim language requires that fluid cannot pass out of the opening and into the recess of the sealing device.

Appellants further argue that since a gasket (15) is required to provide a seal during the application of vacuum and the centrifuge processing does not require the gasket (15) a seal is not formed.

In response, as argued previously, when assembling the disclosed device of Franciskovich et al. to be used in a centrifuge, the upper surface (36) contacts the lower surface (23) in a firmly held and assembled state, the upper surfaces (36) defining the recesses (34) individually seal the first end openings (70) of the plurality of the devices (12).

(b) With respect to the rejection of claims 1-9 and 16-19 under 35 USC 103 (a) over the combination of the references of Franciskovich et al. and Sanadi, Appellants argue that *prima facie* obviousness has not been established for the following reasons:

(i) The combination of the Franciskovich et al. with Sanadi is improper. To support this position Appellants make the following arguments:

The reference of Franciskovich et al. does not teach or suggest sealing each of the openings (70) or a sealing device that individually seals each of the openings (70).

In response, the rejection of record does not suggest sealing openings (70) of Franciskovich et al. with the sealing devices of Sanadi. The rejection of record suggests the replacement of caps (58) which seal openings (52) with the tray (61) of Sanadi that includes recesses (73). The reference of Franciskovich et al. discloses the use of caps (64) for sealing openings (70).

The reference of Franciskovich et al. requires that openings (70) remain open during processing.

In response, the reference of Franciskovich et al. discloses the use of caps (64) for sealing openings (70), if desired, at a subsequent processing step (See column 4, lines 18-21).

The references of Franciskovich et al. and Sanadi “teach away” from one another because the reference of Franciskovich et al. requires a tube with a first and second open ends while the reference of Sanadi requires the use of a tube or well with one closed end and one open end. As a result, one of ordinary skill in

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the art given the disclosure of Franciskovich et al. would not look to the art requiring a closed tube.

In response to applicant's argument that the reference of Sanadi is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is the Examiner's position that the references of Franciskovich et al. and Sanadi are within the same field of endeavor. Specifically, the reference of Franciskovich et al. is drawn to a laboratory device that supports an array of tubes (12) that are individually capped. The reference of Sanadi is also drawn to a laboratory device that supports an array of tubes that require the upper openings of the tubes to be sealed. The reference of Sanadi suggests that the use of a tray device is advantageous over individual caps or plugs (See column 1, lines 56-61). Even if the references are determined not to be within the same field of endeavor, clearly when confronted with the problem of sealing a plurality of openings within an array of open tubes, one of ordinary skill in the art would not limit themselves to only sealing devices for tubes that have two open ends. One of ordinary skill in the art would readily recognize that the sealing devices of Sanadi can be used on the upper openings of the tube of the reference of Franciskovich et al., especially since the tubes are supported in an array format as contemplated by the reference of Sanadi.

(ii) Even if the combination is proper, the skilled artisan would have no motivation to modify Franciskovich et al. in view of Sanadi to obtain the present invention. To support this position Appellants make the following arguments:

The reference of Franciskovich et al. requires a separation column having a first open end and a second open end in order to process a sample. As a result, one skilled in the art would have no motivation to modify the device of Franciskovich et al. by providing a sealing lid as allegedly taught by Sanadi.

In response, as stated previously, the reference of Franciskovich et al. employs a plurality of caps (58) for individually sealing each open end (52). The reference of Sanadi provides an alternative means recognized in the art for individually sealing the open ends of a plurality of tubes within an array. The reference of Sanadi discloses that the use of a tray with recesses (Figure 4A) is advantageous over the use of individual caps (See column 1, lines 56-62). When presented with these disclosures, one of ordinary skill in the art would have clearly been motivated to employ a sealing device as suggested by the reference of Sanadi to seal the openings (52) of the devices (12) of the reference of Franciskovich et al. for the known and expected results of providing an alternative means recognized in the art for sealing a plurality of opening in a tube array while providing the advantages associated with the sealing device of Sanadi when compared to the use of individual caps.

The reference of Franciskovich et al. requires that openings (70) remain open during processing and thus teaches away from sealing the openings (70) with a sealing lid as disclosed by the reference of Sanadi. Appellants stress that the proposed modification would destroy the intent of Franciskovich et al., change the principle operation of Franciskovich et al., and render Franciskovich et al. inoperable.

In response, the rejection of record does not suggest sealing openings (70) of Franciskovich et al. with the sealing devices of Sanadi. The rejection of record suggests the replacement of caps (58) which seal openings (52) with the tray (61) of Sanadi that includes recesses (73). The reference of Franciskovich et al. discloses the use of caps (64) for sealing openings (70). Additionally, the reference of Franciskovich et al. actually discloses that sealing openings (70) is or can be part of the processing steps (See column 4, lines 18-22). Furthermore, since the proposed modification involves replacing caps (58) with the sealing device of Sanadi and the reference of Franciskovich et al. discloses that the caps (58) are in place during the processing steps (See column 5, lines 4-5), the proposed modification is not considered to destroy, change the principle operation and/or render inoperable the device of Franciskovich et al.

The reference of Sanadi teaches away from the claimed sealing device because the lid (65) of Sanadi only provides a seal after sufficient downward pressure is exerted. Appellants take the position that the reference of Sanadi actually teaches away from using a sealing device as claimed because the

reference discloses that sealing devices with tight-fit caps and adhesives can cause cross-contamination.

In response, the fact that the sealing device of Sanadi requires a downward pressure (clamp mechanism) is irrelevant since the structure of Sanadi meets the structure recited in instant claim 1 and provides a seal as required of the claim. Instant claim 1 does not preclude the use of a clamping device and/or force exerting member as part of the sealing device. Furthermore, instant claim 1 does not require that the sealing device employs a “tight-fit cap” or “adhesive”.

(iii) Even if the motivation exists to make the combination, the modification would render Franciskovich et al. unsatisfactory for its intended purpose. To support this position Appellants make the following arguments:

The reference of Franciskovich et al. requires that openings (70) remain open during processing and thus teaches away from sealing the openings (70) with a sealing lid as disclosed by the reference of Sanadi. Appellants stress that the proposed modification would destroy the intent of Franciskovich et al., change the principle operation of Franciskovich et al., and render Franciskovich et al. inoperable.

As argued previously, the rejection of record does not suggest sealing openings (70) of Franciskovich et al. with the sealing devices of Sanadi. The rejection of record suggests the replacement of caps (58) which seal openings (52) with the tray (61) of Sanadi that includes recesses (73). The reference of

Franciskovich et al. discloses the use of caps (64) for sealing openings (70).

Additionally, the reference of Franciskovich et al. actually discloses that sealing openings (70) is or can be part of the processing steps (See column 4, lines 18-22). Furthermore, since the proposed modification involves replacing caps (58) with the sealing device of Sanadi and the reference of Franciskovich et al.

discloses that the caps (58) are in place during the processing steps (See column 5, lines 4-5), the proposed modification is not considered to destroy, change the principle operation and/or render inoperable the device of Franciskovich et al.

(iii) (a) With respect to claims 8 and 9, Appellants argue that the reference of Sanadi teaches away from the use of an adhesive because their use causes aerosol formation and cross-contamination.

In response, while the reference of Sanadi discusses the disadvantages associated with the use of adhesives as a sealing device, the reference discloses that the use of adhesives is known in the art. One of ordinary skill in the art would readily recognize that in the absence of a showing of criticality and/or unexpected results, the use of an adhesive with the sealing tray of Figure 4A of Sanadi would have been within the purview of one having ordinary skill in the art as an alternative means for securing the tray the tubes in place of a clamping device.

(c) With respect to the rejection of claims 10, 11 and 13-15 under 35 USC 103 (a) over the combination of the references of Franciskovich et al. and Bankier et al., Appellants argue that

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the teachings of Bankier et al. do not make up for the deficiencies previously argues with respect to the reference of Franciskovich et al.

In response, the reference of Bankier et al. was relied upon as a tertiary reference to address the additional claim limitations of dependent claims 10, 11, and 13-15. For reasons already of record, the Examiner is of the position that the reference of Franciskovich et al. meets the sealing device limitations previously argued by Applicants.

(d) With respect to the rejection of claim 12 under 35 USC 103 (a) over the combination of the references of Franciskovich et al., Leying et al. and Sheer et al., Appellants argue that the further teachings of Leying et al. and Sheer et al. do not make up for the deficiencies previously argues with respect to the reference of Franciskovich et al.

In response, the references of Leying et al. and Sheer et al. were merely relied upon as tertiary references to address the additional claim limitations of dependent claim 12. For reasons already of record, the Examiner is of the position that the reference of Franciskovich et al. meets the sealing device limitations previously argued by Applicants.

(e) Appellants' arguments with respect to the rejection of claims 48 and 49 under 35 USC 103(a) over the combination of the references of Fernwood et al. and Sanadi are moot since the rejection has been withdrawn.

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(f) With respect to the rejection of claims 48 and 49 under 35 USC 103(a) over the combination of the references of McGraw et al. and Sanadi, Appellants argue that *prima facie* obviousness has not been established for the following reasons:

(i) The combination of the McGraw et al. with Sanadi is improper. To support this position Appellants make the following arguments:

The reference of McGraw et al. does not teach sealing or a sealing device for individually sealing the inlet ends (13) and outlet ends (14).

In response, the reference of McGraw et al. was not relied upon to provide the motivation for suggesting the combination. The reference of Sanadi and the level of skill in the art provides the motivation for the combination. Note one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The reference of McGraw et al. requires that the inlet and outlet openings remain open during processing.

In response, while this may be true, the prior art of record, specifically, the reference of Sanadi, suggests that it is known in the art to simultaneously seal a plurality of openings associated with a laboratory device. In view of this disclosure, one of ordinary skill in the art would recognize that any of the sealing devices disclosed in the background section (column 1, lines 25-64) or the preferred embodiments (Figure 4a) of the reference of Sanadi can be used to seal

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the inlet and outlet openings of the device of McGraw et al. One of ordinary skill in the art would readily recognize that sealing the inlet and outlet openings prior to or after processing would have been within the level of skill in the art to prevent contamination of the device contents prior to use and/or prevent contamination of the device contents after processing. Note the reference of McGraw et al. discloses that the plate device (8) is moved from the processing system for additional processing steps (See column 8, lines 60-68). Sealing of the inlet and outlet openings during the transport or storage of the columns to prevent contamination of the columns would have clearly been within the level of skill in the art. Note a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, when the inlet and outlet openings of the device (8) are sealed as suggested above, the contents of the device are capable of being subjected to processing conditions such as incubation and/or merely handling.

The references of McGraw et al. and Sanadi “teach away” form one another because the reference of McGraw et al. requires open inlet ends and open outlet ends while the reference of Sanadi requires the use of a tube or well with one closed end and one open end. As a result, one of ordinary skill in the art given the disclosure of McGraw et al. would not look to the art requiring a closed tube.

In response to applicant's argument that the reference of Sanadi is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is the Examiner's position that the references of McGraw et al. and Sanadi are within the same field of endeavor. Specifically, the reference of McGraw et al. is drawn to a laboratory device that includes a plurality of wells and/or openings. The reference of Sanadi is also drawn to a laboratory device includes a plurality of wells and/or openings. The reference of Sanadi suggest a plurality sealing devices that are conventional in the art (See column 1, lines 25-64 and the preferred embodiments (Figure 4a)). Even if the references are determined not to be within the same field of endeavor, clearly when confronted with the problem of sealing a plurality of openings within an array of well openings, one of ordinary skill in the art would not limit themselves to only sealing devices for open ended wells. One of ordinary skill in the art would readily recognize that the sealing devices of Sanadi can be used on the upper openings or lower openings of the plate (8) of the reference of McGraw et al., especially since the openings are supported in an array format as contemplated by the reference of Sanadi.

(ii) Even if the combination is proper, the skilled artisan would have no motivation to modify McGraw et al. in view of Sanadi to obtain the present invention.

To support this position Appellants make the following arguments:

The reference of McGraw et al. requires a separation column having a first open end and a second open end in order to process a sample. As a result, one skilled in the art would have no motivation to modify the device of McGraw et al. by providing a sealing lid as allegedly taught by Sanadi.

In response, as stated previously, the prior art of record, specifically, the reference of Sanadi, suggests that it is known in the art to simultaneously seal a plurality of openings associated with a laboratory device. In view of this disclosure, one of ordinary skill in the art would recognize that any of the sealing devices disclosed in the background section (column 1, lines 25-64) or the preferred embodiments (Figure 4a) of the reference of Sanadi can be used to seal the inlet and outlet openings of the device of McGraw et al. One of ordinary skill in the art would readily recognize that sealing the inlet and outlet openings prior to or after processing would have been within the level of skill in the art to prevent contamination of the device contents prior to use and/or prevent contamination of the device contents after processing. Note the reference of McGraw et al. discloses that the plate device (8) is moved from the processing system for additional processing steps (See column 8, lines 60-68). Sealing of the inlet and outlet openings during the transport or storage of the columns to prevent

contamination of the columns would have clearly been within the level of skill in the art.

The reference of McGraw et al. requires that openings (13/14) remain open during processing and thus teaches away from sealing the openings (13/14) with a sealing lid as disclosed by the reference of Sanadi. Appellants stress that the proposed modification would destroy the intent of McGraw et al., change the principle operation of McGraw et al., and render McGraw et al. inoperable.

In response, as argued previously, while this may be true, the prior art of record, specifically, the reference of Sanadi, suggests that it is known in the art to simultaneously seal a plurality of openings associated with a laboratory device. In view of this disclosure, one of ordinary skill in the art would recognize that any of the sealing devices disclosed in the background section (column 1, lines 25-64) or the preferred embodiments (Figure 4a) of the reference of Sanadi can be used to seal the inlet and outlet openings of the device of McGraw et al. One of ordinary skill in the art would readily recognize that sealing the inlet and outlet openings prior to or after processing would have been within the level of skill in the art to prevent contamination of the device contents prior to use and/or prevent contamination of the device contents after processing. Note the reference of McGraw et al. discloses that the plate device (8) is moved from the processing system for additional processing steps (See column 8, lines 60-68). Sealing of the inlet and outlet openings during the transport or storage of the columns to prevent contamination of the columns would have clearly been within the level of skill in

the art. Note a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this, case when the inlet and outlet openings of the device (8) are sealed as suggested above, the contents of the device are capable of being subjected to processing conditions such as incubation and/or merely handling. As a result, the proposed modification is not considered to destroy, change the principle operation and/or render inoperable the device of McGraw et al.

The reference of Sanadi teaches away from the claimed sealing device because the lid (65) of Sanadi only provides a seal after sufficient downward pressure is exerted. Appellants take the position that the reference of Sanadi actually teaches away from using a sealing device as claimed because the reference discloses that sealing devices with tight-fit caps and adhesives can cause cross-contamination.

In response, as argued previously, the fact that the sealing device of Sanadi requires a downward pressure (clamp mechanism) is irrelevant since the structure of Sanadi meets the structure recited in instant claim 1 and provides a seal as required of the claim. Instant claim 1 does not preclude the use of a clamping device and/or forces exerting member are part of the sealing device. Furthermore, instant claim 1 does not require that the sealing device employs a “tight-fit cap” or “adhesive”.

(iii) Even if the motivation exists to make the combination, the modification would render Franciskovich et al. unsatisfactory for its intended purpose. To support this position Appellants make the following arguments:

The reference of McGraw et al. requires that openings (13/14) remain open during processing and thus teaches away from sealing the openings (13/14) with a sealing lid as disclosed by the reference of Sanadi. Appellants stress that the proposed modification would destroy the intent of McGraw et al., change the principle operation of McGraw et al., and render McGraw et al. inoperable.

In response, as argued previously, while this may be true, the prior art of record, specifically, the reference of Sanadi, suggests that it is known in the art to simultaneously seal a plurality of openings associated with a laboratory device. In view of this disclosure, one of ordinary skill in the art would recognize that any of the sealing devices disclosed in the background section (column 1, lines 25-64) or the preferred embodiments (Figure 4a) of the reference of Sanadi can be used to seal the inlet and outlet openings of the device of McGraw et al. One of ordinary skill in the art would readily recognize that sealing the inlet and outlet openings prior to or after processing would have been within the level of skill in the art to prevent contamination of the device contents prior to use and/or prevent contamination of the device contents after processing. Note the reference of McGraw et al. discloses that the plate device (8) is moved from the processing system for additional processing steps (See column 8, lines 60-68). Sealing of the

inlet and outlet openings during the transport or storage of the columns to prevent contamination of the columns would have clearly been within the level of skill in the art. Note a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this, case when the inlet and outlet openings of the device (8) are sealed as suggested above, the contents of the device are capable of being subjected to processing conditions such as incubation and/or merely handling. As a result, the proposed modification t is not considered to destroy, change the principle operation and/or render inoperable the device of McGraw et al.

The reference of Sanadi teaches away from the claimed sealing device because the lid (65) of Sanadi only provides a seal after sufficient downward pressure is exerted. Appellants take the position that the reference of Sanadi actually teaches away from using a sealing device as claimed because the reference discloses that sealing devices with tight-fit caps and adhesives can cause cross-contamination.

In response, as argued previously, the fact that the sealing device of Sanadi requires a downward pressure (clamp mechanism) is irrelevant since the structure of Sanadi meets the structure recited in instant claim 1 and provides a seal as required of the claim. Instant claim 1 does not preclude the use of a clamping device and/or forces exerting member are part of the sealing device.

Art Unit: 1744

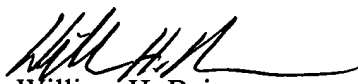
Furthermore, instant claim 1 does not require that the sealing device employs a
“tight-fit cap” or “adhesive”.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related
Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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A.U. 1744

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